

Dale W.R. Rosenthal

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ACADEMIC EXPERIENCE

Department of Finance, **University of Illinois at Chicago**.

Clinical Assistant Professor,
Assistant Professor,

July 2014–present
July 2008–July 2014

- Introduction to Investments (ug); Investments (ug, grad)
- Market Microstructure and Electronic Trading (ug, grad)
- Commodity and Related Markets.

EDUCATION

Ph.D. in Statistics, **University of Chicago**. Chicago, IL August 2008

Dissertation: Trade Classification and Nearly-Gamma Random Variables

Committee: Per Mykland (Advisor), Vanja Dukic, David Modest, Stephen Stigler

B.S. in Electrical Engineering, **Cornell University**. Ithaca, NY May 1995

FELLOWSHIPS AND AWARDS

- Principal Investigator, CME Group Foundation research grant: ‘Taxing Market Activity’ June 2013
(\$25,000; joint with Nordia Thomas and Hefei Wang)
- QuantValley/FdR ‘Quantitative Management Initiative’ research grant (€5,000) May 2012
- Data Explorers, US equities funding data grant April 2012
- Visiting Scholar, Peking University, Department of Financial Mathematics, Beijing (China) June 2010
- Fellowship, Institute on Computational Economics, Argonne, IL Summer 2005
- Inaugural Plotnick Fellowship. Physical Sciences Division, University of Chicago 2004–2008

RESEARCH INTERESTS

I study trading and financial distress via market microstructure and financial econometrics. I also study information propagation delays.

PUBLICATIONS

- “Modeling Trade Direction.” *Journal of Financial Econometrics*, 10(2), 2012, 390–415.
Develops theory for information delays. Analyzes using a delay model and combining indications from trade signing rules to determine trade aggressor (buyer/seller).

WORKING PAPERS

- “Government Bailouts in a Glosten-Milgrom Economy.”
Model for how possibility of bailout affects asset prices and informativeness even when not in crisis.
- “Market Design and Cost of Capital.” (w/Johnathan Brogaard and Fan Wang)
Studies rules/regulations reducing the cost of equity capital; closer link of market, allocative efficiency.
- “Funding Liquidity, Market Liquidity and TED Spread: A Two-Regime Model.” (w/Kris Boudt & Ellen Paulus) Submitted.
Examines using TED spread to distinguish Brunnermeier-Pedersen liquidity cycles (peaceful vs. unstable markets); differences between government and market perceptions of crisis.
- “Market Structure, Counterparty Risk, and Systemic Risk.” In Revision.

WORKING PAPERS (CONT.)

Studies effect of initial bankruptcy in a network of derivative contracts. Rehedging transforms counterparty risk into systemic risk yielding both pooling and separating equilibria.

- “Transaction Taxes in a Price Maker/Taker Model.” (w/Nordia Thomas & Hefei Wang) Submitted.
Develops microstructure theory for a limit order book market to examine effects of a transaction tax, intermediation, and the interaction between these.
- “Approximating Correlated Defaults.” In Revision.
Develops new Edgeworth expansion for reduced-form default modeling via default-approximating debt portfolios. Allows joint estimation of diversity score (\neq iid loans), credit quality (iid loan default intensity).
- “Performance Metrics for Algorithmic Traders.” In revision.
Uses microstructure ideas to separate trading skills from noise; relates these to a price impact model to allow estimating model coefficients.
- “Index Arbitrage and Refresh Time Bias in Covariance Estimation.” (w/Jin Zhang)
Shows that index/ETF arbitrage implies two data generating processes in many stock returns. Theory suggests a bias to high-frequency variance and covariance estimates; analysis confirms this

PRESENTATIONS (INVITED PRESENTATIONS IN *italics*)

“Government Bailouts in a Glosten-Milgrom Economy”

Midwest Finance Association annual meeting, Chicago: March 2015

“Market Structure, Counterparty Risk, and Systemic Risk”

Skewness, Extreme Events in Finance conference, ESSEC/Royaumont Abbey: December 2014 ◦ Skewness, Heavy Tails, Market Crashes, and Dynamics conference, SoFiE/Cambridge U.: April 2014 ◦ *Chicago Federal Reserve Bank: February 2014* ◦ OTC Derivatives, ECB/Banque de France/Bank of England, Paris: September 2013 ◦ Risk Management Institute, National U. of Singapore: July 2013 ◦ Liquidity Risk, Institut Louis Bachelier, Paris: March 2013 ◦ CFTC Research Conference, Washington, DC: November 2012 ◦ Stability and Efficiency of Financial Systems, Reserve Bank of New Zealand, Wellington: December 2012 ◦ *Financial Markets and Real Economic Activity, Austrian National Bank, Vienna: September 2012* ◦ FMA Europe, İstanbul: June 2012 ◦ Mathematical Finance Days, IFM², Montréal: May 2012 ◦ FMA, Denver: October 2011 ◦ Future of Risk Management, Bank of Finland, Helsinki: September 2011 ◦ Financial Networks, GFRI, Geneva: June 2011 ◦ EFM Alternative Investments, York U., Toronto: April 2011 ◦ Long Term Risks, Institut Louis Bachelier, Paris: March 2011 ◦ MFA, Chicago: March 2011 ◦ *UIUC Finance: November 2010* ◦ *UIC Finance: October 2010* ◦ *HKUST ISOM: June 2010* ◦ Volatility and Systemic Risk, NYU-Stern Volatility Institute: April 2010 ◦ *Northwestern U. Statistics: February 2010* ◦ *ISI World Congress, Durban: August 2009.*

“Funding Liquidity, Market Liquidity, and TED Spread: A Two-Regime Model”

Funding Liquidity and Market Liquidity conference, NYU-Stern Volatility Institute: April 2014 ◦ FMA, Chicago: October 2013 ◦ Structural Changes in Money Markets workshop, European Central Bank, Frankfurt: September 2013 ◦ $(EC)^2$ Econometrics and Public Policy, EUI, Florence: December 2011 ◦ UIC seminar: December 2011

“Transaction Taxes in a Price Maker/Taker Market”

China International Conference in Finance, MIT/Tsinghua, Shanghai: July 2013 ◦ Liquidity Risk, Institut Louis Bachelier, Paris: March 2013 ◦ FDIC Derivatives and Risk Management: March 2013 ◦ Auckland Finance Meeting: December 2012 ◦ Global Derivatives USA, Chicago: November 2012 ◦ FMA, Chicago: October 2012 ◦ *Comenius U./National Bank of Slovakia: September 2012* ◦ Frontiers of Finance, Warwick U.: September 2012.

“Approximating Correlated Defaults”

National Bank of Slovakia: September 2012 ◦ *FERM, Hunan U., Changsha: July 2012* ◦ Bachelier Finance Society World Congress, Sydney: June 2012 ◦ Mathematical Finance Days, IFM², Montréal: May 2012 ◦ CQA, Las Vegas: April 2012 ◦ UIC seminar: April 2012 ◦ Credit Analysis, Oakland U., Rochester, MI: July 2011 ◦ Quantitative Methods in Business Applications, Guanghua, Peking U., Beijing: June 2010 ◦ SoFiE Europe, U. de Genève: June 2009.

“Performance Metrics for Algorithmic Traders”

Spot Trading: April 2011 ◦ Hedge Funds, NYSE Euronext/CREST/Lyxor, Paris: January 2012 ◦ *FERM, NTU-CRETA, Taipei: June 2010* ◦ CQA, Las Vegas: April 2010 ◦ *Market Microstructure Workshop, Aarhus U.-CREATES: March 2010.*

“Index Arbitrage and Refresh Time Bias in Covariance Estimation”

Mathematical Finance Days, IFM², Montréal: May 2011.

“Increasing Shareholder Value? A Study of Share Repurchases”

Payout Policy, B. U. Wuppertal: July 2011 ◦ Corporate Governance, U. Birmingham (UK): June 2011.

“Modeling Trade Direction”

MFA, Chicago: March 2009 ◦ Financial Econometrics and Vast Data, OMI, U. Oxford: September 2008
◦ *Spot Trading: February 2011* ◦ *Peak 6: December 2008* ◦ *UIC MSCS seminar: September 2008* ◦ *UIC Finance seminar: February 2008* ◦ *IIT: January 2008* ◦ *U. Chicago Financial Math: December 2007*

CONFERENCE DISCUSSION PRESENTATIONS

Session Moderator and Discussant, Cleveland Fed Financial Instability Conference 2014 ◦ FMA 2013
◦ 3×FMA 2012 ◦ FMA Europe 2012 ◦ Future of Risk Management, Bank of Finland 2011 ◦ Credit Analysis, Oakland U. 2011 ◦ EFM Alternative Investments 2011 ◦ 2×MFA 2011 ◦ MFA 2009.

POLICY PRESENTATIONS

- Testified on risk, holdings of Teachers’ Retirement Services pension fund. Pension Investments Committee, Illinois State Legislature. March 2012
- Briefing on research results: effects of transaction taxes; how market structure affects systemic risk. Board of Directors, Chicago Mercantile Exchange Trust. December 2010

PUBLISHING-RELATED SERVICE

Referee: *Journal of Finance*, *Journal of Financial Econometrics*, *Journal of Business and Economic Statistics*, *Management Science*, *Quantitative Finance*, *European Journal of Finance*, *Journal of Forecasting*, *Algorithmic Finance*, *European Financial Management*.

Reviewer: MIT Press, Chapman & Hall/CRC.

CONFERENCES ORGANIZED

R/Finance Conference. Chicago, IL Spring 2009–present

- Attracts 300+ academics, policy makers, and practitioners from around the world.
- Has received corporate sponsorship every year, resulting in profit and conference endowment.

INDUSTRY EXPERIENCE

Self-employed. Chicago, IL June 2004–August 2004

- Modeled, traded, and hedged 6×6 name long-short equity portfolio to minimize market impact.
- Made 23% return (despite 18% cash reserve); daily P&L volatility of 1.4%; Sharpe ratio of 1.04.

Morgan Stanley. New York, NY March 2000–September 2003
Proprietary Researcher/Trader, Equity Trading Lab

- Researched and traded index rebalances, guaranteed benchmark, and facilitation.
- Modeled market impact; analyzed and modeled execution quality across venues.

Long-Term Capital Management. Greenwich, CT June 1995–February 2000
Strategist, Equity Derivatives

- Structured optimal equity baskets for index arb and synthetic hedging of CBs/warrants.
- Assisted with trading Japanese warrant strategy.

Goldman Sachs. New York, NY September 1993–August 1994
Intern Programmer/Analyst, Listed Equities (Block Trading Desk)

STUDENTS

PhD Students Advised: Nordia D. M. Thomas (2011)

PhD Committee Membership: Suqin Gu (2014), Jin Zhang (2011), David St. John (2010)